

WHAT IS CLAIMED IS:

1. An image processor comprising:

image memory which stores image data;

an image memory control unit which is connected to an  
5 image reading unit for reading image data, and/or an image  
processing unit for processing and editing image data, and/or  
an image writing unit for writing image data to transfer paper  
or the like; receives first image data read-in by said image  
reading unit and/or second image data subjected to image  
10 processing by said image processing unit; transmits the first  
image data and/or the second image data to said image memory;  
and transmits the image data stored in said image memory to  
said image processing unit and/or said image writing unit;  
a system control unit which controls transmission or  
15 reception of control signals used in each of said units or  
between said units; and  
a source detection unit which detects a source of image  
data to said image memory control unit; wherein  
said system control unit controls said image memory  
20 control unit according to the source of the image data detected  
by said source detection unit, and determines a transmission  
order of the image data to said image memory.

2. The image processor according to claim 1, wherein said image memory control unit is connected to said one or more units through an image data control unit,

wherein said image data control unit performs  
5 transmission or reception of image data between said image memory control unit and said one or more units.

3. The image processor according to claim 1, wherein said image memory, said image memory control unit, and said system  
10 control unit are formed as a discrete controller unit.

4. The image processor according to claim 1, wherein said image memory control unit has a bus control unit for  
controlling a bus connected to said one or more units.

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5. The image processor according to claim 1 further comprising:

an image data compression unit which compresses the image data; and

20 a volume determination unit which determines whether the amount of the image data is larger than a predetermined volume,

wherein said image memory control unit provides controls so as to transmit the image data to said image data  
25 compression unit when said volume determination unit

determines that the image data is larger than said predetermined volume.

6. The image processor according to claim 1 further comprising:

an image data expansion unit which expands the image data; and

a compression determination unit which determines whether the image data has been compressed, wherein

10 said image memory control unit provides controls so as to transmit the image data to said image data expansion unit when said compression determination unit determines that the image data has been compressed.

15 7. An image processor comprising:

an image reading unit which acquires an image data;

an image processing unit which processes the image data acquired by said image reading unit;

20 an image memory which stores the image data acquired by said image reading unit or the image data processed by said image processing unit;

an image memory control unit which receives data sent from said image reading unit or image processing unit, and receives the data sent from said image memory and transmits  
25 it to said image reading unit or image processing unit;

a system control unit which controls transmission or reception of data by said image memory control unit; and

a detection unit which detects which one of said image reading unit or image processing unit has transmitted the  
5 image data to said image memory control unit,

wherein said system control unit controls said image memory control unit based on the detected source of the image, and determines the order in which the image data is to be transmitted to said image memory.

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8. An image processor comprising:

image memory for storing image data;

an image memory control means which is connected to an image reading means for reading image data, and/or an image  
15 processing means for processing and editing image data, and/or an image writing means for writing image data to transfer paper or the like; receives first image data read-in by said image reading means and/or second image data subjected to image processing by said image processing means; transmits  
20 the first image data and/or the second image data to said image memory; and transmits the image data stored in said image memory to said image processing means and/or said image writing means;

a system control means for controlling transmission  
25 or reception of control signals used in each of said units

or between said means; and

a source detection means for detecting a source of image data to said image memory control means; wherein

said system control means controls said image memory control means according to the source of the image data detected by said source detection means, and determines a transmission order of the image data to said image memory.

9. The image processor according to claim 8, wherein said image memory control means is connected to said one or more means through an image data control means,

wherein said image data control means performs transmission or reception of image data between said image memory control means and said one or more means.

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10. The image processor according to claim 8, wherein said image memory, said image memory control means, and said system control means are formed as a discrete controller means.

20 11. The image processor according to claim 8, wherein said image memory control means has a bus control means for controlling a bus connected to said one or more means.

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12. The image processor according to claim 8 further comprising:

an image data compression means for compressing the image data; and

5 a volume determination means for determining whether the amount of the image data is larger than a predetermined volume,

wherein said image memory control means provides controls so as to transmit the image data to said image data  
10 compression means when said volume determination means determines that the image data is larger than said predetermined volume.

13. The image processor according to claim 8 further  
15 comprising:

an image data expansion means for expanding the image data; and

a compression determination means for determining whether the image data has been compressed, wherein

20 said image memory control means provides controls so as to transmit the image data to said image data expansion means when said compression determination means determines that the image data has been compressed.

14. An image processor comprising:  
an image reading means for acquiring an image data;  
an image processing means for processing the image data  
acquired by said image reading means;

5 an image memory for storing the image data acquired  
by said image reading means or the image data processed by  
said image processing means;

an image memory control means for receiving data sent  
from said image reading means or image processing means, and  
10 receives the data sent from said image memory and transmits  
it to said image reading means or image processing means;

a system control means for controlling transmission  
or reception of data by said image memory control means; and

a detection means for detecting which one of said image  
15 reading means or image processing means has transmitted  
the image data to said image memory control means,

wherein said system control means controls said image  
memory control means based on the detected source of the image,  
and determines the order in which the image data is to be  
20 transmitted to said image memory.